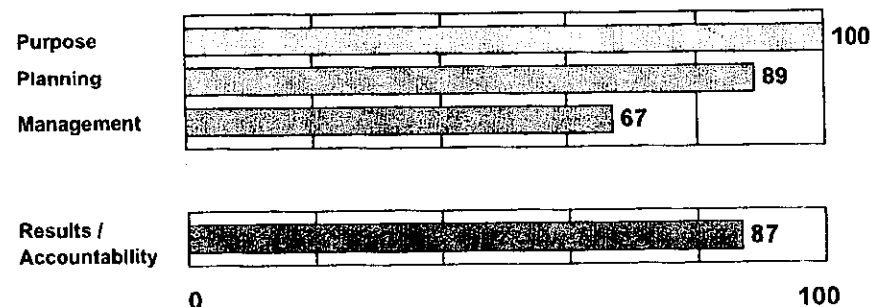


## Program: Biological and Environmental Research

Agency: Department of Energy

Bureau: Office of Science



### Key Performance Measures

Key Performance Measures	Year	Target	Actual
Long-term Measure: Life Sciences -- Progress in characterizing the multi-protein complexes (or the lack thereof) involving a significant fraction of a microbe's proteins, and in developing computational models to direct the use and design of microbial communities toward DOE mission needs. An independent expert panel will conduct a review and rate progress (excellent, adequate, poor) on a triennial basis.	2006	Excellent	
	2009	Excellent	
	2012	Excellent	
	2015	Excellent	
Annual Measure: Improve climate models -- Develop a coupled climate model with fully interactive carbon and sulfur cycles, as well as dynamic vegetation to enable simulations of aerosol effects, carbon chemistry and carbon sequestration by the land surface and oceans and the interactions between the carbon cycle and climate.	2002		Resolution
	2003		New Model
	2004	Testbed	
	2005	3 parameters	
Annual Efficiency Measure: Average achieved operation time of the scientific user facilities as a percentage of the total scheduled annual operation time. (Scheduled annual operating time is roughly 38,880 hours in 2004 and 2005. The ambitiousness and appropriateness of the 90% target level is currently under review in conjunction with a reevaluation of the program's suite of user facilities.)	2002	>90%	97%
	2003	>90%	97%
	2004	>90%	
	2005	>90%	

Rating: Effective

Program Type: Research and Development, Competitive Grant, Capital Assets and Service Acquisition

### Program Summary:

The Office of Science's Biological and Environmental Research (BER) program funds research in climate change, life sciences, environmental remediation, and medical applications, and provides national user facilities used by public and private sector scientists across a wide range of disciplines.

The assessment found that the BER program has developed a limited number of adequate performance measures, as recommended during the 2004 PART process. Additional findings include:

- The program uses targeted grant solicitations that convey the long-term goals of the program, and funds high-risk research that regularly delivers important results in areas such as genomics.
- The program regularly coordinates its activities with other federal research agencies.
- The program recently instituted a Committee of Visitors process, but the programs merit review processes have yet to be validated—for impact on quality, relevance, and performance of the research portfolio—since the assessment(s) have not been completed.

In response to these findings:

- The 2005 Budget provides funds to operate the program's user facilities at 100 percent of maximum capacity (the same as in 2003 and 2004), fully funds the program's climate change science and technology efforts, and increases facility design and research grant funding for Genomics: GTL.
- The Department will develop an appropriate action plan in response to the findings and recommendations of the Committee of Visitors within 30 days of receipt of the report.
- The Department will work with its advisory committee to develop research milestones [by September, 2004] against which future outside panels may judge interim progress toward achieving the long-term goals of the program.

Note: The 2003 and 2004 program funding levels contain \$53 million and \$141 million in Congressional earmarks, respectively.

### Program Funding Level (in millions of dollars)

2003 Actual	2004 Estimate	2005 Estimate
507	641	502